

green carbon 2020

*International Symposium on Functional Biomass-derived
Carbon Materials*

9th–11th March 2021 | ONLINE

Conference Chair:

Joan J. Manyà, University of Zaragoza, Spain

Final Programme

Organised by:



**Universidad
Zaragoza**

In the framework of the GreenCarbon project

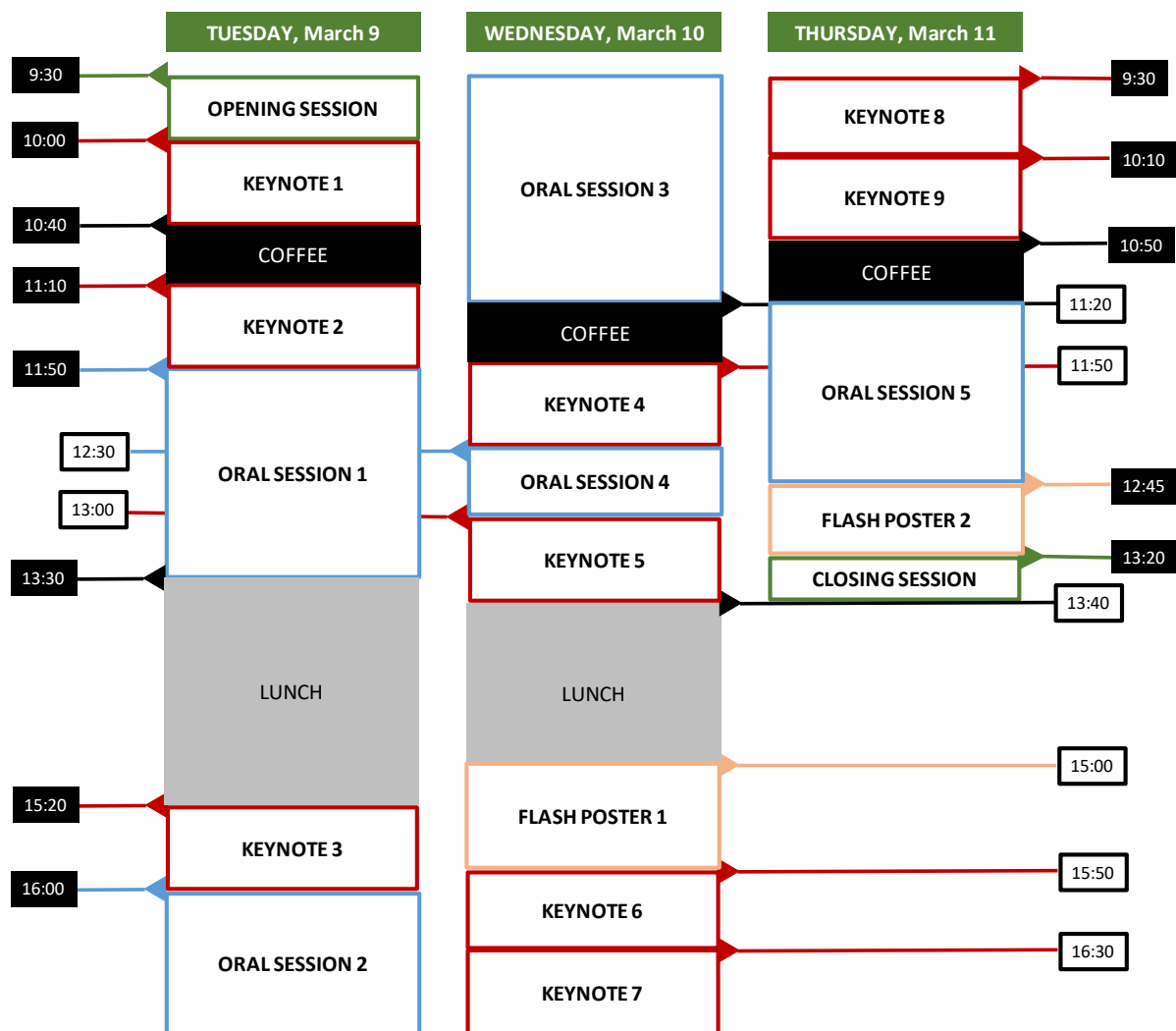


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Programme at a glance¹



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International Symposium on Functional Biomass - derived Carbon Materials (GreenCarbon 2020)

Guest Editor
Prof. Dr. Joan J. Manyà

Deadline
31 July 2021

Special Issue
Invitation to submit

mdpi.com/si/37772

¹ Central European Time (CET): UTC + 1

Tuesday, March 9, 2021

- 09:30 – 10:00 Opening session
- 10:00 – 10:40 **Keynote presentation 1**
Pyrolysis fundamentals and pyrochar characterization
Frederik Ronsse, Ghent University, Belgium
- 10:40 – 11:10 Coffee Break
- 11:10 – 11:50 **Keynote presentation 2**
HTC fundamentals and hydrochar characterization
Andrea Kruse, University of Hohenheim, Germany
- 11:50 – 13:30 **Oral session 1**
- Production of biomass-derived carbons (BCs) through pressurized slow pyrolysis under N₂ and CO₂ atmosphere**
Gianluca Greco, University of Zaragoza, Spain
- Methodology for the design of a rotary kiln for the pyrolysis of biomass**
Jorge López-Ordovás, Aston University, UK
- Prediction accuracy in modelling beech wood pyrolysis at different temperatures using a comprehensive, CFD-based single particle pyrolysis model**
Przemyslaw Maziarka, Ghent University, Belgium
- Valorization of the poultry litter through wet torrefaction and different activation treatments**
Pablo J. Arauzo, University of Hohenheim, Germany
- Influence of reaction conditions on hydrothermal conversion of sugars**
Pierpaolo Modugno, Queen Mary University of London, UK
- 13:30 – 15:20 Lunch time
- 15:20 – 16:00 **Keynote presentation 3**
Advanced carbon materials from tannins
Vanessa Fierro, Institute Jean Lamour (CNRS), France
- 16:00 – 17:10 **Oral session 2**
- Comparison of different methods to determine ash and volatile matter content of biochars**
Markus Lang, RWTH Aachen University, Germany
- Kinetics characterization of barley straw pyrolysis using the Distributed Activation Energy Model (DAEM)**
Javier Pallarés, University of Zaragoza, Spain
- Impact of particle size and ash chemical composition on pyrolysis and CO₂ gasification of barley straw for activated carbon applications**
Antonia Gil, University of Zaragoza, Spain
- Hydrothermal carbonization of glucose in the presence of iron ions**
Vahid Saadattalab, Stockholm University, Sweden

Wednesday, March 10, 2021

09:30 – 11:20

Oral session 3

Biomass based carbon materials for gas storage and separation

Sabina Alexandra Nicolae, Queen Mary University of London, UK

Macroscopic rods of self-assembled monodispersed colloidal hydrochar and related templated SiC and Cu₇Si₂

Xia Wang, Stockholm University, Sweden

Influence of slow pyrolysis conditions on the adsorption of organic dyes from water

Filipe Rego, Aston University, UK

Production of biomass-derived activated carbons for bio-oil and biogas upgrading

Christian Di Stasi, University of Zaragoza, Spain

Heterogeneous transformation of CO₂ to methanol—Structural study of the support

Anthony E. Szego, Stockholm University, Sweden

Sequential biochar systems

Christian Würzer, The University of Edinburgh, UK

11:20 – 11:50

Coffee break

11:50 – 12:30

Keynote presentation 4

Biomass-derived carbons for heterogeneous catalysis

Elsa Weiss-Hortala, IMT Mines Albi, France

12:30 – 13:00

Oral session 4

Aqueous phase hydrogenolysis of glycerol over Ni/AC catalysts

Raquel Raso, University of Zaragoza, Spain

Adsorption of propylene glycol on activated carbon: kinetics experiments

Jorge Fortea, University of Zaragoza, Spain

13:00 – 13:40

Keynote presentation 5

Biomass-derived carbons for adsorption in gas phase

Niklas Hedin, Stockholm University, Sweden

13:40 – 15:00

Lunch time

15:00 – 15:50

Flash poster presentations 1

Hydrothermal carbon as metal-free catalyst and electrocatalyst

Enrique García-Bordejé, Instituto de Carboquímica (ICB-CSIC), Spain

Synthesis of porous carbon materials from nanocellulose

Lucas Güemes, Instituto de Carboquímica (ICB-CSIC), Spain

Turkish hazelnut shells as precursor of sustainable CO₂ adsorbent

Ayse Sever Akdag, Hacettepe University, Turkey

Carbon-nanoparticles hybrids as electrodes in electrochemical energy storage systems

Sergio Aina, University of Zaragoza, Spain

Wednesday, March 10, 2021 (continued)

Studying carbons derived from urban pruning waste as additives in Li-ion battery anodes

Iván Esteve-Adell, Instituto Tecnológico de la Energía (ITE), Spain

Biomass-based activated nitrogen doped carbons for energy applications

Ance Plavniece, Latvian State Institute of Wood Chemistry, Latvia

15:50 – 16:30

Keynote presentation 6

Biomass-derived carbons for Na-ion batteries

Maria Magdalena Titirici, Imperial College London, UK

16:30 – 17:10

Keynote presentation 7

Biomass-derived carbons for redox flow batteries

Ana Jorge-Sobrido, Queen Mary University of London, UK

Thursday, March 11, 2021

- 09:30 – 10:10 **Keynote presentation 8**
Sequential uses of biochar
Ondrej Masek, The University of Edinburgh, UK
- 10:10 – 10:50 **Keynote presentation 9**
Biochar for soil restoration
Gabriel Gascó, Universidad Politécnica de Madrid, Spain
- 10:50 – 11:20 Coffee break
- 11:20 – 12:45 **Oral session 5**
- Biochar from greenhouse waste: Production, characterization and evaluation for its potential use in the horticultural growing media**
Dilani Rathnayake, Ghent University, Belgium
- Role of biochar in the implementation of a phytomanagement strategy on soils presenting polymetallic pollution**
Manhattan Lebrun, University of Orléans, France
- Biochar from agro residues in adsorption tests for water treatment**
Lydia Fryda, UniLaSalle-Ecole des Métiers de l'Environnement, France
- Examining samarium sorption in biochars and carbon-rich materials for water remediation: batch vs. continuous-flow methods**
Joan Serra, University of Barcelona, Spain
- Comparative analysis of biochars to be used in greenhouse gas abatement and first trends of their application to pig manure**
Josephine Getz, Technological University Dublin, Ireland
- 12:45 – 13:20 **Flash poster presentations 2**
- HTC as promising route for enhancing thermal insulation in bioarchitecture**
Silvia Román, Universidad de Extremadura, Spain
- The effect of biomass-derived carbon materials on the recovery of metals from mining tailings by hydrometallurgical processes**
Gabriel Gascó, Universidad Politécnica de Madrid, Spain
- Copper and zinc leaching from complex sulphide ore: The effect of biomass-derived activated carbon as catalyst**
Ana Méndez, Universidad Politécnica de Madrid, Spain
- The use of magnetic biochars as catalysts in the lixiviation of metals from mining tailings**
María L. Álvarez, Universidad Politécnica de Madrid, Spain
- 13:20 – 13:40 Closing session